

REMARKS

35 U.S.C § 103

The examiner rejected Claims 1-10, 13-2, and 24-26 under 35 U.S.C. 103(a), as being unpatentable over Abbasi, US 6,786,863, in view of Yee, US 6,016,385, and in further view of Biocca et al., US 2002/0080094.

Claim 1, as amended, is distinct over any purported combination of Abbasi, Yee, and Biocca because the alleged combination neither describes nor suggests that a virtual reality encounter system includes “a mannequin; a camera coupled to the mannequin...; a processor that receives the first video image signal and morphs the first video image signal; an adapter to send the morphed, first video image signal to a communications network and receive a second, video image signal from the communications network, the second video image signal of a second, different physical location being morphed by or sent in an original form to the processor; and a set of goggles to display the second video image of the second, different physical location, morphed or in the original form.”

The examiner contends on page 5, lines 8-10 of Office Action that:

Abbasi does not describe morphing the captured video image and does not describe wherein the displays are a set of goggles or explicitly that the surrogate is a humanoid robot.

The examiner further acknowledges that:

Neither Abbasi nor Yee describe that the image acquired by the camera but do not describe wherein the image is morphed or overlays the image on a virtual scene. However, Biocca teaches a teleportal system to provide remote communication to a plurality of users, wherein a process that receives a first video image signal, morphs the first video image signal and sends the morphed image signal to a second, physical location to be displayed (column 9, line 65-column 10, line 6); and wherein the processor overlays a virtual environment over one or more portions of the video image to form a virtual scene (figures 1 and 12B, 12C). It would have been obvious to one of the ordinary skill in the robotic and communication arts, to morph the acquired image because as Biocca suggests, morphing the image and overlaying the image allows the image to be perceived in a user preferred 3D or stereoscopic view that gives a more realistic view of the second location ([0038]-[0039]). (emphasis added)

Applicant contends that none of the references describes “a set of goggles to display the second video image of the second, different physical location, morphed or in the original form.” Since the examiner readily admits neither Abbasi nor Yee describes image is morphed or

overlays image on a virtual scene, the examiner relies on Biocca to teach morphing and overlaying images. In particular, the discussion at column 9, line 65-column 10, line 6 in Biocca pointed out by the examiner states:

13. The head mounted display unit of claim 1 wherein the first and second augmented-reality displays generate a stereoscopic image to the eyes of the user.

14. The head mounted display unit of claim 1 further comprising a computer network, wherein the image data receiving unit operably receives image data from the remote location via the computer network.

15. The head mounted display unit of claim 1 wherein the retro-reflective material is at least 98 percent reflective.

Biocca clearly requires the head mounted display unit, which one could arguably say a set of goggles, to be highly reflective in order to retro-reflect light projected onto its surface and project the image onto a screen for display. Specifically, as described in paragraph [0032] in Biocca, the teleportal system requires a screen 103 made of a retro-reflective material to be built around a user as four walls and a ceiling. A spherical screen 104 is required and disposed within the room or physical environment for projecting image. Biocca does not describe “a set of goggles to display the second video image of the second, different physical location, morphed or in the original form,” because Biocca would necessarily require a screen in addition to the head mounted display unit worn by the user to display a image.

For another example, in Fig. 12b, Biocca discloses that:

In desktop system 702, two users 110 observe a 3D object on a table top screen 708. In the preferred embodiment, screen 708 is spherically shaped. All users in site of the screen 708 can view the perspective projections at the same time from their particular positions.

As such, Biocca describes that the light is refracted by the head mounted display units of different users to produce a projected image on a screen for display, for example, the spherical screen 708 in the above passage.

Furthermore, Biocca in Fig. 12c describes that:

FIG. 12c shows yet another alternate embodiment of teleportal site 704. User 110 has a wearable computer forming a “magic mirror” configuration of a teleportal site 704. Teleportal headset 105 is connected to a wearable computer 712. The wearable computer 712 is linked to the remote user (not shown) preferable via a wireless network connection. A wearable screen includes a hand-held surface 714 covered with a retro-reflective fabric for the display of the remote user. A “magic mirror” configuration of teleportal site 704 is preferred in the outdoor setting because it is mobile and easy to transport. In the “magic mirror configuration,” the

user holds the surface 714, preferable via a handle and positions the surface 714 over a space to view the virtual environment projected by the projective display of the teleportal head set 105.

This portion of discussion explicitly shows that Biocca requires the user to hold a “magic mirror” to view the virtual environment image projected by the projective display of the teleport head set. Therefore, Biocca does not describe “a set of goggles to display the second video image of the second, different physical location, morphed or in the original form.”

Claim 1 is allowable over Abbasi in view of Yee and further in view of Biocca.

Claim 15, as amended, recites similar features of claim 1 and is allowable for analogous reasons discussed in claim 1.

Claim 2-10, 13-14, 16-21, and 24-26 are allowable at least for the reasons discussed in claim 1.

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The examiner rejected claims 11, 12, 22, and 23 under 35 U.S.C. 103(a), as being unpatentable over Abbasi in view of Yee and Biocca as applied to claims 7 and 20 above, and further in view of Simmons, US 2003/0030397.

The examiner argues that:

Neither Abbasi, Yee nor Biocca teach that the body of the robot includes that the cameras are positioned in the eye sockets and the microphone of the robot is positioned in the ear canal. However, Simmons teaches a system and method of controlling a robot remotely, wherein the robot is a humanoid robot (figure 5); the robot includes an eye socket and the camera is positioned in the eye socket ([0026]); and the robot includes an ear canal wherein the microphone is positioned in the ear canal ([0016]). It would be obvious to one of ordinary skill in the art to combine the inventions of Biocca in view of Yee with the teachings of Simmons because as Simmons teaches, placing the sensors in the position corresponding to the human sensors aligns the sensors to the perspective of the use and better reflects the environment to the perspective of the user ([0026]). (emphasis added)

Applicant disagrees. Claim 12 recites “the body includes an ear canal and the microphone is positioned within the ear canal.” Simmons at para. [0016] discloses:

[0016] It is another object of the current invention to provide 3-dimensional, 360 degree relative sound response providing the user with direction and amplitude feedback precisely responsive to the attitude of the remote equipment's relative 3 dimensional attitude towards the sound sources. In addition to the larger effects, this can include even the refinements of outer ear shape and position as sounds from different directions are focused by the oval sound-shell of the outer ear.

Simmons is understood to teach providing the user with direction and amplitude feedback, however, nowhere does Simmons describe "the body includes an ear canal and the microphone is positioned within the ear canal."

Claim 12 and 23 are allowable over any purported combination of Abbasi, Yee and Simmons.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Any circumstance in which the Applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

In view of the foregoing, Applicant respectfully requests entry of the amendment since it addresses specific objections first raised by the examiner in the instant office action, does not require any further consideration or search. Accordingly, Applicant submits that the application is in condition for allowance and such action is respectfully requested at the examiner's earliest convenience.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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